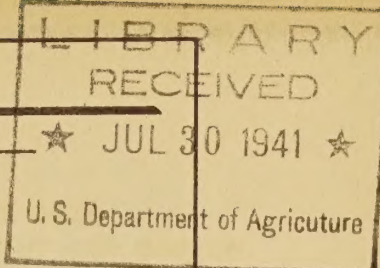


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# news letter

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Vol. 3.

July, 1941

No. 1.

## GENERAL ADMINISTRATION

### Defense Effort

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The Department is planning a campaign for the sale of Defense Savings Bonds and Defense Savings Stamps and Dr. Knight has designated Henry A. Donovan, Assistant Chief, as Chairman of a committee to organize the campaign in the Bureau. Employees will be informed as to the opportunity offered through the Defense Savings Bonds and Defense Savings Stamps for their participation in the Government's defense program by periodic investment of part of their earnings. The campaign will not be brief, but will be a continuing, sustained effort.

While preliminary arrangements have not been completed the following have been appointed as Group Agents to contact employees in Washington and serve as the employees' liaison representatives for the handling and purchase of the bonds and stamps: E. C. Lundstrom, K. McSorley, E. A. Dierkes, H. T. Dale, M. S. Koepfle, E. H. Ways, L. Cramer, M. L. Mustad, L. D. McCormack, F. B. Fallon, E. H. Nielsen and L. W. Yates.

At a later date field employees will be included in the plan.

The Agricultural Appropriation Act for 1942 was passed by Congress on June 30, 1941. It provides for the following sub-appropriations: General Administrative Expenses, \$105,200; Agricultural Chemical Investigations, \$342,664; Agricultural Engineering Investigations, \$314,469; Naval Stores Investigations, \$115,400.



From the Bankhead-Jones funds for Special Research the Bureau received the following allotments: Investigations of Grain Storage on the Farm, \$1,500; The Chemistry of Enzymes, \$23,350; Investigations of the Allergens of Agricultural Products, \$28,100; Investigations of Processes for Preserving Specimens of Materials Related to Agriculture in as nearly a natural condition as possible; \$6,660; Investigation of the Hemicelluloses and Lignocelluloses of Cereal Straws, Hays, and other Forage Crops, \$3,000; Chemical Studies on Animal Viruses and the Problem of Tumors, \$8,900; Investigation of Farm Storage of Corn, \$10,500; Uniform and High Density Packing of Cotton at Gins, \$20,400; Investigation of Storage of Grain Sorghum on the Farm, \$3,000; Research into the Industrial Utilization of the Soybean and Soybean Products, \$94,500.

Under the sub-appropriation for Conservation and Use of Agricultural Land Resources, the Regional Research Laboratories received \$3,500,000.

Recently Dr. Knight visited the plant of the C. F. Cates and Sons Co., Faison, N. C., where cooperative work with the Bureau field station at Raleigh, N.C. is being carried on with regard to the most effective method for preparing and preserving pickles and allied products. Part of these investigations consist in the operation of a model pickle-salting plant on the grounds of the Cates Company.

C. A. Wolfe, Chief of the Administrative Services Division, who has been ill since May 1, is reported to be improving.

The Bureau forwarded to the Departmental Committee to raise funds for the United Service Organizations the sum of \$261.45, representing the contributions of 298 Washington employees. Henry A. Donovan, as chairman of the Bureau Committee, appointed the following employees to facilitate the collection of contributions: L. Cramer, H. T. Dale, E. A. Dierkes, F. B. Fallon, L. Guest, M. G. Harris, R. Hayden, M. Koepfle, L. McCormak, D. V. Milbourne, M. L. Mustad, E. H. Nielsen, D. E. Rowland, K. Rowland, E. F. Thompson and L. W. Yates.

The U. S. O. is composed of the Salvation Army, Y.M.C.A., Y.W.C.A., Traveler's Aid, Jewish Welfare Organizations, and Catholic Welfare Organizations. The funds collected will be used to provide wholesome recreational, cultural and religious facilities for the men in our armed forces throughout the country.

The following Bureau Memoranda were issued during June: No. 219, Defense Activities, F.Y. 1941, Special Defense Estimate, F. Y. 1942; No. 220, All F. Y. 1941 Purchase Requests due in Purchase and Property Section by June 24; No. 221, Procurement of Equipment or Supplies Involving Essential Materials; No. 222, Personnel Affidavit; No. 223, Distribution of Sixteenth Census Reports; No. 224, Report Required by the Procurement Division of all purchases made by the Department.

On the 9th of July, Henry A. Donovan, Assistant Chief, conferred with officials of the Eastern Regional Research Laboratory at Wyndmoor, Pa. on business and administrative matters.



S. H. McCrory attended the annual meeting of the A.S.A.E., at Knoxville, Tenn.; June 23-25. On July 9 he visited the School of Living at Suffern, N.Y., and conferred with officials in regard to the Bureau's work on new electrical devices for use on the farm. He also visited Sussex, N.J., in connection with joint investigations on silos and silage equipment.

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#### SOUTHERN REGIONAL RESEARCH LABORATORY

Clarence M. Asbill, Jr., has been appointed Associate Cotton Technologist in the Cotton Processing Division. Mr. Asbill was transferred to this laboratory from the Agricultural Marketing Service. He received his B. S. degree from Clemson Agricultural College.

R. J. Cheatham, Chief of the Cotton Processing Division, attended the Second Cotton Research Congress in Waco, Texas, June 26, 27, and 28.

Mark E. Wood has been transferred to the Cotton Processing Division as Assistant Cotton Technologist from the Bureau of Home Economics. Mr. Wood received his B. S. degree from Texas Technological College.

On June 18, 1941, E. A. Gastrock conferred with members of Regional Planning Advisory Committee (South Central Region) of the National Resources Planning Board with reference to the work of this Committee as it relates to the work of the Laboratory. Planning for the location of defense projects with respect to the present emergency is receiving special attention.

John S. Duhe has been appointed Assistant Engineering Aide in the Engineering and Development Division. Before being transferred to this laboratory, Mr. Duhe was employed in the Resident Engineer's Office, Division of Plans and Service, on work relating to the construction of this Laboratory.

Henri J. Molaison of the Engineering and Development Division visited Texas A & M College the week of June 16-20. Demonstrations of delinting, cooking, pressing and oil-refining equipment were in progress which have a bearing on the operation of vegetable oil mills in the South.

Charles F. Goldthwait has been appointed Senior Chemist in charge of the Modified Finishing Section in the Cotton Chemical Finishing Division. Mr. Goldthwait received his B. S. degree from Worcester Polytechnic Institute. He was for many years connected with the Mellon Institute and has had extensive experience in the field of cotton processing, with special emphasis on mercerization.

Dr. Ruby K. Worner, Associate Textile Technologist in the Cotton Chemical Finishing Division, recently attended the annual meeting of the American Home Economics Association at Chicago.

Thos. D. Fontaine has been appointed Assistant Chemist in the Oil, Fat and Protein Division. Mr. Fontaine received his B. A. degree from Mississippi College in 1937. From 1937 until the time of his appointment



he has been a graduate student and candidate for the Ph. D. degree at the University of Pittsburgh. While working for his Doctor's degree, he spent one year as graduate assistant at the University of Pittsburgh and three years as Cotton Research Foundation fellowship at the Mellon Institute for Industrial Research. During the period of his fellowship, he published a series of eleven articles covering the research which he has carried out on cottonseed protein and related products.

Edward T. Steiner, Jr. Chemist, reported for duty June 30, 1941 in the Analytical, Physical Chemical and Physical Division.

Dr. F. H. Thurber has been appointed Senior Chemist in charge of the Processing Section of the Sweetpotato Products Division, by transfer from the Division of Agricultural Chemical Research. Since 1931, when he became associated with the Division of Carbohydrate Research, Dr. Thurber has been prominently identified with the sweetpotato starch research of the Bureau. The sweetpotato starch plant at Laurel, Mississippi, was designed and built under his direction. In his new assignment, Dr. Thurber will be responsible for continued investigations on sweetpotato starch and its manufacture and for technical advice and assistance to the Laurel starch enterprise. He has spent most of the past three months at Laurel in connection with the design of improved equipment to be installed in the plant.

Dr. W. O. Gordon has been appointed Chemical Engineer in the Sweetpotato Products Division by transfer from the Division of Agricultural Chemical Research. He has been associated with the sweetpotato utilization research of the Bureau for several years, following extensive chemical engineering experiences in the industrial field. He has been engaged in investigations at the Laurel, Miss. field station on dewatering and dehydrating sweetpotatoes as a means of preserving them for starch production and other industrial utilization and will continue these investigations under his new assignment.

Gordon L. Doremus has been appointed Junior Chemist in the Sweetpotato Products Division. Mr. Doremus received his B.S. and M. S. degrees from Tulane University.

On June 26 and 27, R. T. Balch of the Division of Agricultural Chemical Research, and Dr. W. O. Gordon of the field station at Laurel, Miss., were in the laboratory for conference with the staff of the Sweetpotato Products and Engineering and Development Divisions.

On June 30, J. W. Randolph of the Division of Farm Mechanical Equipment Research, stationed at Laurel, Miss., conferred at the laboratory with the staffs of the Sweetpotato Products and Engineering and Development Divisions.

P. R. Dawson, Chief of the Sweetpotato Products Division recently conferred at Clewiston, Fla., with officials of the U. S. Sugar Corporation in connection with the production of sweetpotato starch.



Dr. Richard E. Reeves, a native of Nebraska, has been appointed Associate Chemist in the Cotton Fiber Research Division. Dr. Reeves received his Ph. D. degree in Chemistry in 1936 from Yale University. During the past five years he has held research positions in Chemistry at Yale University, the Rockefeller Institute, and Boyce Thompson Institute for Plant Research. His research has been in the field of cellulose chemistry.

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#### WESTERN REGIONAL RESEARCH LABORATORY

R. S. Hollingshead, E. M. Chace, and H. W. von Loesecke have been holding conferences at the Western Regional Research Laboratory with Dr. Swenson and the Division Chiefs regarding special dehydration studies to be conducted here. W. B. Van Arsdel has returned to Albany after a conference in Washington, D. C. regarding this work.

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On the evening of May 19 from 7:30 to 9:00 p.m., 334 members of the East Bay U. S. D. A. Club and their friends visited the laboratory and were shown through the building.

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Dr. Landis of the Fleischmann Yeast Laboratories, New York, visited this laboratory on May 27, was shown through the building, and had a conference with Dr. Lightbody, Chief, Biochemical Division, regarding problems of mutual interest.

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A group of Bureau of Plant Industry research men visited the Laboratory May 27, and conferred with Dr. Binkley and other members of the staff on alfalfa proteins. The group included H. L. Westover, in charge of Alfalfa Investigations, Washington, D. C.; Dr. Howard W. Johnson, Forage Crop Diseases, Washington, D. C., and Dr. Oliver F. Smith, Alfalfa Diseases, Reno, Nevada.

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On July 3 J. D. LeCron, Assistant to the Secretary of Agriculture, visited the Western Laboratory.

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Among the other visitors to the laboratory were the following faculty members of the schools indicated; Dr. Melvin Calvin, Dr. Kenneth Pitzer, and Dr. Samuel Ruben of the University of California; Dr. Charles Coryell of the University of California at Los Angeles; Dr. John Y. Beach of Princeton; and Dr. Robert Corey of the California Institute of Technology.

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#### NORTHERN REGIONAL RESEARCH LABORATORY

Dr. R. T. Milner, Dr. E. H. Melvin, and F. C. Rustenbach, discussed spectroscopic equipment with officials of the Regional Soybean Industrial Products Laboratory and of the University of Illinois, at Urbana, Ill.

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Harry E. Rothe addressed the Kiwanis Club of Geneseo, Ill., on the subject, "The Northern Regional Research Laboratory, What it is, and What it Expects to Accomplish."

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Dr. R. H. Manley and Dr. C. D. Evans conferred in Urbana, Ill., with Dr. C. S. Marvel of the Chemistry Department of the University concerning hydrogen bonding as it is related to solvents for zein. They also visited the Regional Soybean Laboratory to see the solvent extraction tower.

Dr. Kenneth B. Raper and Dr. Lynferd J. Wickerham conferred with members of the staff of the Department of Botany of the University of Illinois. Accompanying them were Dr. Cecil T. Langford and Donald L. Reed, who visited the Regional Soybean Laboratory to confer with W. H. Goss concerning the solvent extraction of soybean oil, and Cecil Van Etten who consulted with L. G. Fauble of the Chemistry Department of the University.

Dr. R. D. Coghill, accompanied by Dwight L. Miller, was in Ames, Iowa, to attend a demonstration of a new process for increasing yields of alcohol from corn by fermentation.

Dr. Kenneth B. Raper addressed the Society for the Study of Growth and Development at the annual symposium of the Society held at Dartmouth College July 7 to 11, 1941. His paper entitled "Developmental Patterns in Simple Slime Molds," constituted one of the principal addresses of the symposium and was presented at the invitation of the Society. Dr. Raper presided over the two-hour general discussion following the presentation of his address. After the symposium Dr. Raper visited the Biological Laboratories of Harvard University, where he obtained cultures of micro-organisms to augment the collection of industrial strains now being assembled by the Fermentation Division.

J. H. Shollenberger, E. C. Lathrop, John J. Curtis, T. R. Naffziger, and J. W. Wood went to Springfield, Ill., to assist in experiments on straw collection in connection with research work of the Agricultural Residues Division.

H. T. Herrick conferred recently with members of the staff of the Laboratory. Dr. May accompanied him to Urbana, Ill., for conferences with members of the staff of the Regional Soybean Industrial Products Laboratory.

Dr. S. I. Aronovsky has assumed active duties as Head of the Pulp and Paper Section of the Agricultural Residues Division. He has been acting in charge of the Agricultural Byproducts Laboratory at Ames, Iowa.

Dr. John W. Knowlton, who has been appointed Associate Chemist in the Agricultural Motor Fuels Division, received his Bachelor of Science degree from George Washington University and his Masters and Doctors degrees from the University of Maryland. Before he transferred to this Laboratory he was employed at the Bureau of Standards. He had also been in the service of the Bureau of Animal Industry at Beltsville.

Other appointments to the Laboratory are Oliver L. Yarham, Jr. chemical engineer, Agricultural Residues Division; William M. Edwards, Jr., agricultural economist, Commodity Development Division; Richard L. Slotter assistant chemical engineer, Engineering and Development Division; and Jackson C. Miers, scientific aide, Starch and Dextrose Division.



J. H. Shollenberger and Dr. G. E. Hilbert studied phases of the utilization of cereals, particularly wheat, when they visited the General Mills Company and the Agricultural Experiment Station, at Minneapolis, Minn.; and the Canadian Grain Research Laboratory of the Board of Grain Commissioners, and the Grain Inspection Laboratory at Winnipeg, Manitoba, Canada. Dr. Hilbert conferred also regarding processing of starch with members of the staff of the National Research Council, Ottawa, Ontario, which is the government scientific and standards laboratory of Canada.

The following groups were taken on personally conducted tours of the Laboratory: summer school students in nutrition, home management and nursing from Bradley Polytechnic Institute, Peoria, members of the Home Bureau, Farmington, Ill.; agriculture students of Illinois State Normal University, Normal, Illinois.

J. B. Elliot of the Eastern Regional Research Laboratory was a recent visitor at this Laboratory.

Anselmo M. Viacava, Commercial Counselor of the Argentine Embassy, and J. L. G. Harriet, representative of the Caterpillar Tractor Company in Buenos Aires, Argentina, were interested visitors at the Laboratory. They conferred with Dr. May and other members of the staff.

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#### EASTERN REGIONAL RESEARCH LABORATORY

On June 12 and 13 R. W. Frey, Chief, Hides, Tanning Materials, and Leather Division, conferred at New Brunswick, New Jersey, and vicinity with representatives of Region No. 1 of the Soil Conservation Service and of the Bureau of Plant Industry on the harvesting, handling, and marketing of domestic sumac in connection with the possibility of developing increased supplies of this material from native stands in New Jersey.

R. E. Lothrop, E. G. Beinhart, and Dr. C. O. Willits attended the conference of the Regional Agricultural Planning Committee, Northeast Division, held at Swartmore, Pa., June 16-20.

Henry A. Donovan, Assistant Chief of the Bureau, spent July 9 at the laboratory, inspecting the facilities and discussing the Business Office setup with officials of the laboratory.

C. K. Halowell and a group of county agents from Pennsylvania visited the laboratory on Monday, June 30. This group was particularly interested in becoming better acquainted with the general setup of the laboratory because of the frequent inquiries they receive relating to the laboratory and its functions.

R. W. Frey, Chief, and J. S. Rogers, Senior Chemist, of the Hides, Tanning Materials, and Leather Division attended the annual meeting of the American Leather Chemists Association held at Bolton Landing, N.Y., June 23-25. They presented three papers: "Tannin Content of Sitke Spruce Bark," "Leaching and Tanning Experiments with Tara Pods," and "A Five-Year Cold Storage Experiment with Salted Calfskins." Informal conferences



regarding the work of the Division were held with a number of the chemists of the leather industry.

Two representatives of the Pennsylvania Sugar Company of Philadelphia, Dr. Reich and Mr. Stetson, visited the laboratory on July 9, 1941, to discuss problems relating to production of vitamins in fermentation processes. They were greatly interested in the research equipment available in the laboratory, particularly the pilot plant facilities.

Dr. J. A. Mathews of the Food and Drug Administration, Federal Security Agency, visited the laboratory on July 7. He is interested in the carbohydrate research work.

Professor Hobart Beresford, head of the Agricultural Engineering Department of the University of Idaho visited the laboratory on July 12. His primary interest was in the chemical engineering and development equipment being installed in the pilot plant wing.

R. E. Lothrop, Technical Assistant to Director, and C. P. Shoffner of Station WCAU broadcast over that station at 3:30 p.m. on July 11. The subject of their discussion was, "Why Regional Research Laboratories."

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#### RURAL ELECTRIFICATION RESEARCH

Several members of the American Society of Agricultural Engineers who attended the annual meeting of the Society at Knoxville, Tenn., June 23-26 passed through Washington and stopped at the office after the meeting. Among these visitors were Gus Bliesner, Rural Utilization Division, Bonneville Administration, Portland, Oregon; F. E. Price, Professor of Agricultural Engineering, Oregon State College, Corvallis, Oregon; and Hobart Beresford, Professor of Agricultural Engineering, University of Idaho, Moscow, Idaho.

Harry L. Garver attended the annual meeting of the American Society of Agricultural Engineers. This meeting provided the opportunity for a "get together" of members of the Division which was held Thursday morning. Those in attendance were H. L. Garver; O. A. Brown, Irwinville, Ga.; J. W. Weaver, Jr., Blacksburg, Va.; J. B. Rodgers, Sikeston, Mo.; R. L. Witz, Lafayette, Indiana; and J. B. Greiner, Athens, Ga. Mr. McCrory was also present.

Two members of the Division read papers before certain groups at the A. S. A. E. meetings: Mr. Weaver read a paper on "Cooling Eggs on the Farm and at Grading Stations" and Mr. Greiner one on "Heating Studies of a Homemade Outdoor Brooding Unit."

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#### FARM STRUCTURES RESEARCH

The grain studies formerly made at Washington will be conducted in the future under the direction of Dr. Henry J. Barre at Ames, Iowa. C. F. Kelly has been detailed to the headquarters at Ames and B. M. Stahl



to Jamestown, North Dakota.

Considerable interest is being evidenced in work being done by Arthur H. Senner to introduce a method of saving fuel-oil by analyzing the CO<sub>2</sub> content of the flue gas. Such an analysis makes it feasible to adjust the burner of house heaters much more accurately than by present methods. Tests have shown that more than 12 percent of the fuel oil can be saved when the burner is properly adjusted.

A. D. Edgar is at Gibbons, Nebraska, investigating the method of shipping the early crop potatoes from the Kearney-Gibbon area over the Union Pacific Railway, to the Chicago market with the view of inaugurating better practices to prevent damage.

M. A. R. Kelley and Wallace Ashby attended the meeting of the American Society of Agricultural Engineers at Knoxville, Tenn. Messrs. Simons and Hudson also attended the meeting from Athens, Ga., and Mr. Hudson presented a paper before the society on "Better Living in Southern Farmhouses."

H. L. Boyd has joined the office temporarily as a draftsman and is helping with illustrations for bulletins.

J. R. McCalmont is at Sussex, N.J., studying silage problems at the New Jersey Experiment Station.

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#### MECHANICAL PROCESSING OF FARM PRODUCTS RESEARCH

##### Cotton Ginning and Packaging Projects.

Among the visitors at the Laboratory from June 15 to July 15, were Messrs, Jewell, Forbes and Newell from Chattanooga, Tenn.; E. B. Bridges, Blytheville, Ark.; T. M. Simpson, Union City, Tenn., M. H. Byrom, College Station, Texas; J. W. Young and J. A. McKnight, Crawfordsville, Ark., and a group of Tri-State planters who attended the U.S.D.A. discussion with the Bureau of Entomology representatives at Stoneville on July 11.

C. A. Bennett presented a paper on "Compression of Cotton at Cotton Gins" before the American Society of Agricultural Engineers at Knoxville, Tenn. on July 24 and conferred with Mr. McCrory and other members of the Bureau while in Knoxville.

On July 1st E. Buford Williamson reported at Stoneville as Junior Agricultural Engineer with the packaging project.

Between June 30 and July 3 C. A. Bennett travelled to Ropesville, Texas, via Amarillo on cotton ginning work in connection with plans for a gin proposed by the F.S.A.

On July 14 Mr. Cronic, cotton ginner for J. P. White & Co., Roswell, N.M., paid a special visit to the Laboratory, to consult on means for humidifying air in airblast gins when cotton is extremely dry.



A number of new pieces of equipment are being set up at Stoneville as received from the ginning manufacturers in exchange for older models. This equipment includes the latest developments in cleaner-extractor-feeders and gin stands.

The Laboratory hammermill has enabled the engineers to reclaim approximately 100 sacks of Portland cement which had been lumpy and air-set. After being run through the hammermill it appeared to have the same qualities as new material and has proved satisfactory in side walks and some other structures.

On July 12 V. L. Stedronsky left by automobile for an inspection of Georgia cotton gins and discussions of Georgia ginning problems with the Extension Service and leading local ginners in north Georgia. These conferences were held in a number of ginning centers and covered the week ending July 19.

On July 17 C. A. Bennett of this Bureau and F. L. Gerdes of the Agricultural Marketing Service left for Arizona where some important roller ginning research work will be conducted this fall on the heavily increased acreage of irrigated cottons which have principally gone to the SXP variety. Over 90 new roller gin stands are reported to have been sold for installation this season.

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#### NAVAL STORES RESEARCH DIVISION

Dr. L. A. Goldblatt attended the meetings of the Association for the Advancement of Science at Gibson Island, Maryland, June 16-19, and from June 24-27.

W. D. Pohle attended the W. D. Bancroft Colloid Symposium at Cornell University, Ithaca, N. Y., June 18-21.

C. F. Speh, attended the meetings of the American Society for Testing Materials at Chicago, Ill., June 24-28. He also visited the Laundryowners National Association at Joliet, Ill., where he discussed the work on rosin soaps and proposed rosin soap specifications.

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#### PROTEIN AND NUTRITION RESEARCH DIVISION

Dr. D. Breese Jones attended the annual meeting of the National Peanut Council, held at Pensacola, Fla., May 25 to 28, and gave an address on the "Proteins of Peanuts." This was the first annual meeting of the Council.

Dr. Claude H. Hills has been transferred from the Protein and Nutrition Research Division to the Eastern Regional Laboratory. During the last year, Dr. Hills was engaged in this Division on studies of tobacco mosaic virus, a project supported by funds provided under the Bankhead-Jones Act.



Recent visitors to this Division include: Dr. John F. Lyman, Professor of Agricultural Chemistry, Ohio State University, Columbus, Ohio; Atherton Lee, Federal Experiment Station, Mayaguez, Puerto Rico; J. B. Roberts, Traders Oil Mill Company, Fort Worth, Texas; and E. L. Cocke, Vice-President, Ashcraft Wilkinson Company, Atlanta, Ge.

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#### AGRICULTURAL CHEMICAL RESEARCH DIVISION

R. S. Hollingshead, Assistant Chief of the Division, and Harry W. von Loesecke, of the Winter Haven, Florida Station, are at present on a Western trip to assist in organizing the dehydration investigations. E.M. Chace, of the Los Angeles Laboratory, is head of the committee assigned to this work, which is to be conducted in cooperation with the Western Regional Research Laboratory at Albany, California,

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G. R. Fessenden, of the Plant Preservation Section, recently visited Tamaqua, Pa., Rochester, N.Y., and Cambridge and Boston, Mass., to confer with officials of educational institutions, representatives of industry, and others interested, regarding the work of this project.

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L. S. Stuart, formerly of the Hides, Tanning Materials and Leather Investigations Division, has been transferred to the Microbiology Section.

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A number of prominent members of the baking industry, attending the Food and Drug Hearings on Bread Standards, have called at the Cereal Section to examine breads made with different amounts of honey. Among those to call were Messrs. Ferguson of the American Lecithin Co., Victor Marx, Editor of Bakers' Helper; F. G. Jungewoelter and Wm. Walmsley of the American Institute of Baking; Jay Burns, Burns Baking Co.; Omaha; and W. F. Gossadge, General Production Supt., Grocers Baking Co., Louisville, Ky., one of the largest users of honey in baking. These men also visited the laboratory devoted to honey investigations and showed lively interest in the Bureau's world-wide collection of bottled honeys.

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Other Washington visitors were the following; M. C. Albrecht, formerly connected with the old Bureau of Chemistry and for many years with the R. T. French Co., of Rochester, N.Y.; Bob Roberts of the Traders' Oil Mill, Ft. Worth, Texas, who conferred with members of the Cereal Section, regarding peanut flour; and W. T. Schreiber, of the Auburn, Ala. field station, who on his return trip to Auburn stopped to visit the Division's field station at Raleigh, N.C., and the State Agricultural Experiment Station with reference to the sweet potato feedstuffs investigations.

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The Raleigh, N.C., field station has now moved to its summer quarters at the Chas. F. Cates Pickle Co., Faison, N.C.

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L. H. Bailey and J. A. LeClerc were delegates at the National Nutrition Conference for Defense recently held at the Mayflower Hotel in Washington.

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C. A. Fort and H. H. Hall attended a recent meeting of superintendents and chemists of the Farmers and Manufacturers Beet Sugar Association, at Detroit, Mich., and discussed the data presented in the Division's annual beet sugar report. About 70 representatives of the industry from the Eastern area were present. In the report this year special attention was given to the quality of beet sugar as affected by the quality of the beets in different producing areas. Mr. Fort also visited Association headquarters at Saginaw, Mich., to arrange new cooperative work on storage of beets and to inspect an instrument designed by the Michigan Sugar Co. for measuring the reflectance of sugars.

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E. K. Ventre, in charge of the Baton Rouge, La., and Meridian, Miss. field stations, is now at Meridian to install new pilot plant equipment being provided to investigate the commercial production of sugar from saccharine sorghum (sorgo). The harvesting and milling season usually begins about August 15. This project is being conducted in cooperation with the Bureau of Plant Industry of the Department and the Louisiana Agricultural Experiment Station. In last year's work methods were found to overcome the long-standing difficulty of crystallizing sucrose efficiently from sorgo, and certain varieties of sorgo were found to overcome the long-standing difficulty of crystallizing sucrose efficiently from sorgo, and certain varieties of sorgo were found to have a high a sugar content as standard Louisiana sugarcane. Further development of the sugar-making process and research on the recovery and utilization of by-products are now necessary and will be carried on simultaneously with investigations being undertaken by the Bureau of Plant Industry to develop greater pre-acre yields of the crop.

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E. M. Chace and E. A. Beavens of the Los Angeles Laboratory recently made a trip to Central California to survey dehydration industries. They consulted with the Fruit Products Division of the University of California at Berkeley, and with the Engineering Section of the California Agricultural Experiment Station at Davis, where a small experimental dehydrator was in operation. They visited dehydration plants at San Jose, Gilroy, and Vernalis. The plant at San Jose was the only one in full operation. One of the others was under construction and expected to be ready for operation by July 1, starting on onions and garlic. One other plant at Vacaville, Calif., had recently been moved and the management hoped to begin work on the same raw material in July. The plant at Vernalis was found to be in the experimental stage only. Information was obtained on the availability of prune driers for drying vegetables.

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Among recent visitors to the Los Angeles Laboratory were the following: H. E. Goresline, Head of the Microbiology Section of the Washington laboratories; M. A. Joslyn, of the Fruit Products Division of the University of California at Berkeley, and a chemistry class of Los Angeles City College.

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H. J. Loeffler, who has held a Fellowship at the Los Angeles Laboratory supported by the Glass Container Association, made a trip to headquarters of the Association in New York City, and attended the Food Technology meeting at Pittsburgh in June. Mr. Loeffler also stopped at the Washington office en route.

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Arrangements are being made with the National Youth Administration to obtain assistants for work on certain fruit and vegetable projects at the Los Angeles Laboratory.

By invitation, F. H. Thurber attended the meeting of the American Society of Agricultural Engineers, held at Knoxville, Tenn., June 23-26, and presented a paper on "The Mechanical Aspects of Starch Production from Sweetpotatoes."

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#### FARM MECHANICAL EQUIPMENT RESEARCH

A. T. Holman was in eastern North Carolina June 26 to July 3, studying the operation of mechanical equipment on the Farm Security Administration cooperative farms. The equipment in use included 11 general-purpose tractors, 6 combines, power mowers, tractor cultivators, buck rakes and drag-line excavators. The combines were in operation harvesting wheat, rye, oats, and barley. The combining of both winter and spring grain was handled efficiently, although high humidity caused considerable delay. Buck rakes are mounted on general purpose tractors and used to move the straw and hay to the edge of the field where it is stacked with mechanical stackers. Tractors are equipped with two-row cultivators and used for the cultivation of corn and soybeans. Arrangements have been made to obtain complete cost records on the use of tractors, trucks, combines, horses and mules, and records of their annual use in hours.

R. B. Gray attended the annual A.S.A.E. convention at Knoxville, June 23-26, where he was on the program to present a paper, "Farm Machinery and Soil Conservation," prepared jointly with Dr. M.L. Nichols of the Soil Conservation Service.

From Knoxville, in company with R. M. Merrill, Mr. Gray visited Auburn, Ala., to discuss the work at the Tillage Laboratory and note the progress in the construction work of the new shop and garage and the lisimeters to be used in connection with the soil bins in measuring infiltration. From Auburn, Messrs Merrill and Gray went to Montgomery, Ala., and Montezuma, Ga., to visit Farm Security Administration Farms. Mr. Gray returned to Washington June 30.

C. C. Gray, General-Manager of the Superior Separator Company of Minneapolis, Minn., visited the Division during the month. This Company has added a new line - a combination hay-rake and stacker - to their business and Mr. Gray obtained some illustrative material of this equipment for use in revision of the bulletin on haying equipment and practices.

W. H. Alton, Manager of the R. T. Vanderbilt Company of New York, visited the Division in connection with the Bureau dusting experiments carried on at the Toledo Laboratory in which work the Vanderbilt Company has given valuable cooperation.

John W. Randolph attended the A.S.A.E. convention at Knoxville, Tenn. June 23-26 and presented a paper entitled "Equipment for Production and Harvesting of Sweetpotatoes."



G. A. Cumings conferred with State experiment station officials and inspected fertilizer placement experiments in New York, Michigan, Texas, Mississippi, South Carolina, and North Carolina during the latter part of June. An example of the continued progress toward more effective methods of fertilizer application was found in Michigan where a 4-row beet and bean drill was recently equipped with an improved fertilizer-placement shoe. One hundred of these machines were sold and the available supply was exhausted early in the season. Implement manufacturers have other improved fertilizer-placement tools on trial in various sections of the country.

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R. M. Ramp reported June 23 for duty on the Fertilizer Distributing Machinery Project to fill the vacancy created by the departure of W. H. Redit. Mr. Ramp was formerly connected with the University of Delaware.

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A new high-clearance, self-propelled hydraulic sprayer for use in the corn borer control experiments was completed at the Toledo station. The machine performed satisfactorily in the initial field trials.

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During June Frank Irons visited areas in Wisconsin infested with the pea aphid to confer with Federal and State entomologists and observe insecticide duster equipment used for the control of this insect. Tentative arrangements were made to assist in the mechanical phases of pea aphid control. From Wisconsin, Mr. Irons traveled through the grasshopper-infested regions of Minnesota, North and South Dakota, Wyoming, and Colorado. The grasshopper populations are much lower this year than in recent years. The poison bait spreaders and mixers developed at Toledo are being used to good advantage where needed.

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R. M. Merrill attended the A.S.A.E. annual convention, June 23-26 at Knoxville, where he presented a paper on the activities of the Tillage Machinery Laboratory before the Soil and Water Conservation Division of the Society. He also visited Iowa State College, Purdue University, South Bend, Indiana, and Dearborn, Michigan, to confer with agricultural workers and implement manufacturers on problems pertaining to "trash farming" or "mulch culture" practices.

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#### PUBLICATIONS APPEARING OUTSIDE THE DEPARTMENT

- BALLS, A. K. (With F. E. ARANA, Puerto Rico Agr. Expt. Sta.) The determination and significance of phenols in vanilla extract. Jour. of Assoc. of Off. Agr. Chem. 24(2): 507-512, May, 1941.
- BEINHART, E. G. Tobacco research at the eastern regional laboratory. Tobacco Leaf (New York). 77(3982 & 3983): 6 & 12, June 14, 1941 & June 21, 1941.
- BLISH, M. J. Wheat and flour technology. Fruit Prod. Jour. and Amer. Vinegar Indus. 20(9): 296, May, 1941.
- COLLINS, E. V. and SHEDD, C. K. Results of row spacing experiments with corn. Agr. Engin. 22 (5): 177-178, May, 1941.



- EARL, F. R. and DETWILER, S. B., JR. Wax constituents of the winterizer press cake of soybean oil. Oil and Soap 18 (6): 117-119, June, 1941.
- GORDON, E. D. Physical reactions of soils on plow disks. Agr. Engin. 22 (6): 205-208, June, 1941.
- HOPPER, T. H. Report of the soybean analysis committee. Oil and Soap 18 (6): 132-133, June, 1941.
- HORN, M. J. and JONES, D. B. Isolation from astragalus pectinatus of an amino acid complex containing selenium and sulfur. Jour. of Biol. Chem. 139(2): 649-660, June 1941.
- JONES, D. B. The effect of heat on the nutritive value of proteins. Seed proteins of leguminous plants. (abstract) Jour. of Nutr. 21 (6): 20-21, June 10, 1941.
- KNIGHT, H. G. Farm research narratives - industrial utilization of farm products. Agr. Ed. Mag. 13(12): 224-226, June, 1941.
- \_\_\_\_\_ Tung oil remains industry's best drying oil. Manufacturers record 110(6): 34, 35 and 64. June, 1941.
- JONES, G. I. What are the vitamins? Cereal Chem. 18(3): 413, May, 1941.
- MCCALIP, M.A. and SEIBERT, A. H. Aconitic acid in sediment and scale in Louisiana sugar houses. Sugar Bul. 19(17): 84-87. June 1, 1941.
- \_\_\_\_\_ Aconitic acid from sugarcane products. Indus. & Engin. Chem. 33(5): 637-6 40, May, 1941.
- SENNER, A. H. Domestic oil burner efficiency graph. Air Conditioning & Oil Heat, 14 (6): 12 & 13, June, 1941.
- WHITTEMORE, E. R., DRYDEN, E. C. and ARONOVSKY, S.I. Conductometric analysis of sodium sulphite and ammoniacal pulping liquors. Paper Trade Jour. 112(25): 29-34, June 19, 1941.

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# CHANGES IN PERSONNEL

## Recent Appointments - Indefinite or Probationary

Alice L. Edrington	Jr. Clerk-Stenog. (Weslaco, Tex.)	Agr. Chem. Res. Div.
James Buckley	Clerk	Audit Section
E. Buford Williamson	Jr. Agr. Engr. (Stoneville, Miss)	Cotton Ginning Inv.
Mrs. Alice L. Ring	Jr. Clerk-Stenog. (Scottsbluff, Nebr.)	Farm Struct. Res.
Philip C. Lehn	Assistant Messenger	Misc. Ser. & Rec. Sec.
Lillian E. Jochenning	Senior Stenog.	Personnel Div.
James Wood	Asst. Arch. Engineer (Spec.)	Plans and Service
Thomas F. Lumsden	Agent CC (Engr. Aide) (Athens, Ga.)	Rural Elec. Res. Div.
Cornelius Augustin	Unskilled Laborer (Uncl.)	East. Reg. Res. Lab.
George L. Baker	Collaborator (Newark, Dela.)	" " " "
Julius Bencivengo	Unskilled Laborer (Uncl.)	" " " "
Elva M. Buckhalter	Jr. Clerk-Stenog.	" " " "
Genaro Caruso	Unskilled Laborer (Uncl.)	" " " "
Mrs. Catherine D. Cochran	Under Clerk-Typist	" " " "
Louis Colussi	Unskilled Laborer (Uncl.)	" " " "
Raymond A. Fisher	Unskilled Laborer (Uncl.)	" " " "
Ignatius J. Galante	Unskilled Laborer (Uncl.)	" " " "
Smith D. Hurd	Jr. Storekeeper	" " " "
Wister U. Hyde	Engineering Draftsman	" " " "



		East.	Reg.	Res.	Lab.
Jerome G. Kaufman	Asst. Scientific Aide	"	"	"	"
Edward G. Kelley	Chemist	"	"	"	"
Leopold J. Laky	Unskilled Laborer (Uncl.)	"	"	"	"
Maurice A. McCarthy, Jr.	Unskilled Laborer (Uncl.)	"	"	"	"
Francis E. McIntyre	Jr. Clerk-Stenog.	"	"	"	"
William J. Mitchell	Unskilled Laborer (Uncl.)	"	"	"	"
Charles Morasco	Unskilled Laborer (Uncl.)	"	"	"	"
Anthony Murdock	Unskilled Laborer (Uncl.)	"	"	"	"
Clyde L. Ogg	Assistant Chemist	"	"	"	"
James Pezzullo	Unskilled Laborer (Uncl.)	"	"	"	"
Joseph F. Rosato	Unskilled Laborer (Uncl.)	"	"	"	"
William Spivack	Asst. Scientific Aide	"	"	"	"
Albert L. Tramontina	Unskilled Laborer (Uncl.)	"	"	"	"
Robert H. Treadway	Assoc. Chem. Technologist	"	"	"	"
Samuel J. Viola	Unskilled Laborer	"	"	"	"
Monroe E. Wall	Assistant Chemist	"	"	"	"
Ellwood A. Winton	Unskilled Laborer (Uncl.)	"	"	"	"
William J. Wolf	Unskilled Laborer (Uncl.)	"	"	"	"
John Lewis Wood	Associate Chemist	"	"	"	"
Charles F. Woodward	Senior Chemist	"	"	"	"
Abe Anellis	Under Scientific Aide	North.	"	"	"
Mary Virginia Carswell	Jr. Clerk-Typist	"	"	"	"
William M. Edwards	Jr. Agricultural Economist	"	"	"	"
Harold H. Geller	Under Scientific Aide	"	"	"	"
John Hillier	Senior Electrician	"	"	"	"
John W. Knowlton	Associate Chemist	"	"	"	"
Carl B. Kretschmer	Assistant Chemist	"	"	"	"
James W. Mannion, Jr.	Asst. Scientific Aide	"	"	"	"
Geoffrey McDowell	Under Scientific Aide	"	"	"	"
Jackson C. Miers	Scientific Aide	"	"	"	"
Mitchel Penovich	Under Scientific Aide	"	"	"	"
Richard L. Slotter	Asst. Chemical Engineer	"	"	"	"
Harry E. Spitler	Jr. Engineering Aide	"	"	"	"
Donald H. Traufler	Under Scientific Aide	"	"	"	"
Harold P. Vind	Asst. Scientific Aide	"	"	"	"
Alfred Zawilla	Minor Scientific Aide	"	"	"	"
Aaron M. Aitschul	Associate Chemist	South.	"	"	"
Clarence M. Asbill, Jr.	Assoc. Cotton Tech. (New Orleans La.)	"	"	"	"
Thomas L.W. Bailey, Jr.	Assoc. Cotton Tech. do	"	"	"	"
Dorothy Beckemeyer	Junior Librarian	"	"	"	"
Albert L. Blash	Sr. Operating Engineer	"	"	"	"
Carl M. Conrad	Sr. Cotton Technologist	"	"	"	"
Donald O. Cord	Assistant Messenger	"	"	"	"
Gordon L. Doremus	Junior Chemist	"	"	"	"
Morris J. Dupuy	Skilled Laborer	"	"	"	"
Mitchell Fontenot	Skilled Laborer (Oiler)	"	"	"	"
Charles F. Goldthwait	Sr. Cotton Tech.	"	"	"	"
Joseph Guzzardo	Sr. Steamfitter & Pipefitter	"	"	"	"
Lamont Hagan	Junior Chemist	"	"	"	"



Joseph T. Hogan	Asst. Scientific Aide	South. Reg. Res. Lab.
Enoch Karrer	Sr. Cotton Technologist	" " " "
John F. Keating	Junior Chemist	" " " "
Anthony G. Petrie	Assistant Clerk	" " " "
Mrs. Beatrice N. Power	Jr. Clerk-Stenog	" " " "
Richard E. Reeves	Associate Chemist	" " " "
Elizabeth McKnight Smith	Jr. Clerk	" " " "
Mark E. Wood	Asst. Cotton Technologist	" " " "
Robert I. Ashby	Asst. Clerk (Property)	West. " " "
Edward P. Bremer	Sr. Engineering Draftsman	" " " "
John F. Carson, Jr.	Assistant Chemist	" " " "
James A. Galvin	Jr. Scientific Aide	" " " "
Carol B. Hess	Junior Statistician	" " " "
Leo Kline	Junior Chemist	" " " "
Harold J. Loeffler	Associate Chemist	" " " "
Harry Lotzkar	Asst. Scientific Aide	" " " "

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Recent Appointments - Temporary

Paul D. Little	Under Scientific Helper (Meridian, Miss)	Agr. Chem. Res.
Wyly D. Nelson	Jr. Sugar Technologist	" " " "
Russell M. Ramp	Asst. Agr. Engineer (Arlington Farm, Va)	Farm. Mech. Equip
Hansel L. Boyd	Principal Draftsman	Information Division
George T. Armstrong	Junior Chemist (Olustee, Fla.)	Naval Stores Res. Div.
Charles Louis Caputi	Chief Engineering Draftsman (Arch)	Plans and Service
Grace E. Smiley	Jr. Clerk-Stenog.	East. Reg. Res. Lab.
Philio W. Bohne	Asst. Engineering Aide	South. " " "
Ruth E. Lyback	Junior Clerk-Typist	West. " " "
Margaret P. Wolcott	Junior Stenog.	" " " "

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Separations

Gerald L. Hart	Minor Scientific Helper	
	(San Francisco, Calif.)	Agr. Chem. Res. Div.
Robert R. Foster	Jr. Scientific Aide (Ames, Iowa)	Agr. Byproducts Lab.
John L. Shorten	Jr. Scientific Aide	" " " "
Edith M. Harrison	Jr. Clerk-Stenog.	Chem. Lab. Equip Sec.
Walter Marion Ball	Carpenter & Millwright	
	(Stoneville, Miss.)	Deceased. Cotton Gin. Inv.
Irene E. Jacobs	Jr. Clerk-Stenog. to Dept. of Labor.	Enzyme Lab.
Alfred King	Assistant Messenger (Resigned)	Miscel. Ser. & Rec. Sec.
R. E. Loadholtz	Unskilled Laborer (Olustee, Fla.)	(Uncl.) Naval Stores Res.
Charles L. McDonald	" " " "	" " " "
James McDonald	" " " "	" " " "
Fred Robinson	" " " "	" " " "
Larcenor Robinson	" " " "	" " " "
Charley E. Williams	" " " "	" " " "
Mrs. Sarah B. Batnick	Senior Stenographer	Plans and Service
Ruth Weinstein	Jr. Clerk-Typist to War Dept.	" " " "
Mrs. Judith McDonald	Junior Clerk-Typist	Pur. and Prop. Section
Richard H. Johnson	Mechanic (Urbana, Ill) to B.P.I.	Reg. Soybean Lab.
Roger F. Kelley	Asst. Scientific Aide (Urbana)	" " " "



William H. DeLaVergne	Electrical Engineer	Rural Elec.Res. Div.
Joseph B. Elrod	Agent(CC)(Blacksburg, Va.)	" " " "
Mrs. Goldie A. Bruce	Under Clerk-Typist	North.Reg.Res. Lab.
Anne Josephine Flanagan	Under Clerk-Typist	" " " "
Janice Carr Gillett	Under Clerk-Typist	" " " "
Alta Isabel Raver	Under Clerk-Typist	" " " "
Bette Marie Stedman	Under Clerk-Typist	" " " "
Jeanette L. Zara	Under Clerk-Typist	" " " "
Agnes O. Bordelon	Jr. Clerk-Stenographer	South. " " "
John T. Gibbons	Sr. Cotton Technologist	" " " "

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The following Bureau employees are on furlough for military training and service:

Baggett, Thos. L.	Cotton Gin. Inv.	Stoneville, Miss.	National Guard
Caldwell, Alvin	Agr. Chem. Res.	Washington, D.C.	U.S. Army Reserves
Charlebois, Thos. M.	East. Reg. Res. Lab.	Wyndmoor, Pa.	Draftee
Cleaver, Thayer	Farm Structures	Urbana, Ill.	U.S. Army Reserves
Cooley, Paul A.	Plans & Service	Washington, D.C.	U.S. Army Reserves
DiCamillo, Lewis	East. Reg. Res. Lab.	Wyndmoor, Pa.	Draftee
Eberle, Allan Richard	do	do	Draftee
Hedden, Orve K.	Farm Mech. Equip.	Toledo, Ohio.	U.S. Army Reserves
Hienton, Truman E.	Rural Elec. Res.	Lafayette, Ind.	U.S. Army Reserves
Johnson, C. Rodney	Farm Structures	Washington, D.C.	Draftee
Keller, Frank Marion	Plans & Service	Albany, Calif.	U.S. Army Reserves
Marshall, Clark	East. Reg. Res. Lab.	Wyndmoor, Pa.	Draftee
Norgord, Walter W.	do	do	Draftee
Malin, Benj. S.	Plans & Service	Washington, D.C.	U.S. Army Reserves
Patton, Elmo L.	Naval Stores Res.	Olustee, Fla.	U.S. Army Reserves
Redit, Walter H.	Farm Mech. Equip.	Arlington Farm	U.S. Army Reserves
Rockey, John W.	Farm Structures	Washington, D.C.	U.S. Army Reserves
Semmett, Wm. F.	East. Reg. Res. Lab.	Wyndmoor, Pa.	Draftee

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